

## ABSTRACT OF THE DISCLOSURE

[0022] In an embodiment, a phase change non-volatile memory includes a number of memory cells. The memory cells include a phase change material which may transition between two memory states. The phase change material has different electrical properties in different states. The memory cells may be electrically addressable and include a transistor in each cell to electrically read and write data to the cell. An energy beam may be used to pre-program the device by heating selected memory cells, and consequently changing the state of the phase change material.